



Big Data Driving Need for Storage Application Platforms

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Partnering with Xyratex for Data-intensive Application Appliances

When application development companies take their products to market, they have a choice of going to market as a packaged software application or partnering with an OEM server and storage supplier to deliver a solution as an application appliance. The advantages of going to market as a turnkey appliance include the ability to ensure that all components interoperate and that the overall balance of the solution meets the performance and availability requirements of the end user environment. In addition, support is dramatically simpler for the application developer, when the developer can control the hardware components in the environment.

For the end customer, an appliance provides tremendous time-to-value advantages, because they are not spending their time selecting, procuring, and preparing the hardware environment for the packaged application, which frees them from having to wind their way through hardware compatibility matrices in ensuring configurations of hardware and software are correct. Appliances also eliminate the finger pointing that can occur between various suppliers, when application performance and availability issues arise. For this reason, there are literally thousands of appliances on the market today, providing turnkey, plug-and-play solutions for internet security, anti-virus, data mining, video surveillance, video streaming, file and database archiving, electronic records retention, electronic discovery, search, file sharing, data deduplication, encryption, data compression, medical imaging, and this list merely scratches the surface of what is available.

The Growth of Big Data

Recently, the term, “Big Data”, has come into popular use within the IT market. Big Data becomes evident when the amount of data, the number of files, and/or the number of objects exceeds the ability of traditional methods to ingest, transform, manage, analyze and understand the meaning behind the data. As examples, companies confront big data problems when file sizes increase dramatically due to technologies such as streaming high-definition video or radiological imaging, when metadata associated with billions of files becomes important to understanding the meaning or the management of files, when sensor data delivers billions or trillions of small data points, or when archives that have transitioned from paper and film to digital, must be searched rapidly. Each of these problems has a few things in common: the amount of data is big, the value to the organization comes from locating the data quickly and understanding the meaning behind the data, and the applications, which analyze the data and add insight and value to the data, depend upon data protection on-line and constant availability.

Data-intensive Application Appliances

Appliances have been around for decades, but, typically, the amount of storage in an appliance has been relatively small. As a result, many application developers paid little attention to the unique storage capabilities of an appliance partner. However, with the tremendous growth in the amount of data, I/O and throughput requirements, the number and size of files, one thing is clear: Applications are increasingly data-intensive. This means that appliances will require more data throughput, higher levels of availability, more storage capacity, and better response time to support applications, especially Big-Data applications.

Companies that want to dominate in the data-intensive application appliance market need to focus their development resources on application functionality and usability as well as selecting an industry-leading storage partner to deliver the storage component of the appliance. Storage appliances require a partner with experience in storage component testing, storage system hardware design, hardware test and failure analysis, component sourcing, supply-chain management, quality control, bill-of-material management and hardware support. Leading companies turn to Xyratex as their chosen storage appliance partner based on its long-term experience in all of these critical areas.

History

More than any other company, Xyratex understands the storage requirements of a data-intensive application appliance. Xyratex, formed in 1994 from a management buyout of the IBM storage and networking operations in Havant, England, has remained sharply focused on its core competency: Serving the needs of storage system and data-intensive application-appliance providers worldwide. This focus has enabled the company to achieve its position as the #1 OEM supplier of storage systems in the world.

Starting at the Core

The core of any data-intensive application appliance is the data storage technology that goes into the appliance. Whether an appliance is Xyratex-based or not, approximately 50% of the disk drives produced in the world are processed utilizing Xyratex technology during their manufacture. This technology helps hard disk drive manufacturers reduce failure rates and manufacturing costs. Because of its capabilities in the disk drive and component test processing business, Xyratex reduces cost of deployment for the drive suppliers and allows OEM solutions providers to deliver more robust and feature rich offerings.

Worry-Free Product Transitions

Disk drive technology evolves quickly. Rapid product refresh rates enable appliance suppliers to take advantage of the latest capacity, form-factor, performance, and price points. However, this rapid refresh cycle also means that the designers must take particular care with new technologies that may have higher initial failure rates. The most elegant application and simplest user interface cannot overcome the negative customer experience and high support costs associated with disk-drive failures, application unavailability, and lost or corrupted data.

Partners can achieve worry-free product transitions and greater levels of customer satisfaction from Xyratex' patented testing methodologies. Before each system ships, separately manufactured components (e.g. enclosures, I/O modules, application modules, and application platforms) are taken through a battery of patented I/O and accelerated environmental testing. This level of testing filters out those components that would otherwise suffer failures that ultimately impact product return rates and end-user customer satisfaction.

Patented Integrated System Test

Xyratex capabilities do not end with disk drives; however, as Xyratex also holds multiple patents in its own integrated system test process. This process enables Xyratex customers to reduce warranty claims by 50-75% compared to industry standards and double the mean time between failures (MTBF), reducing maintenance costs and warranty expense for partners, while increasing satisfaction for the partners' customers.

Global Reach and Global Support

With more than 2000 employees worldwide, and offices throughout North America, EMEA, and Asia, Xyratex has the capability to meet the global requirements of its customers, while also maintaining expertise in localized markets in support of local requirements. Its experience, global reach and massive buying power enable Xyratex to act as the logistics and global strategic-sourcing agent for their customers.

Long Term Success

Xyratex has a 25-year history of research and development, which it has leveraged to a 10-fold growth in revenue since 2000, and enabled the company to achieve its position as #1 OEM supplier of storage systems. Xyratex supplies more than 50% of the top data storage vendors including five major Tier 1 vendors. This strategy to maintain a diversified customer base ensures that both large and emerging vendors receive the same high levels of support.

Summary

By focusing on areas of differentiation and avoiding the capital-consuming distractions and complexities of storage system hardware design and testing or the disruptions and distractions associated with poor quality from OEM suppliers that lack its experience, technology and resources, Xyratex customers achieve tremendous growth. It is no coincidence many of the high profile, multi-billion dollar acquisitions of emerging storage companies were Xyratex customers. Further, it is no surprise these same companies realized a high degree of satisfaction in their customer base throughout their growth. These are words that any company, founder, or investor should live by: “Stick to what you know well and partner with the best.”

About Xyratex

Xyratex is a leading provider of enterprise class data storage subsystems and storage process technology. The company designs and manufactures enabling technology that provides OEM and disk drive manufacturer customers with data storage products to support high-performance storage and data communication networks. Xyratex has over 25 years of experience in research and development relating to disk drives, storage systems and high-speed communication protocols.

Founded in 1994 in an MBO from IBM, and with headquarters in the UK, Xyratex has an established global base with R&D and operational facilities in Europe, the United States and South East Asia.



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